Inorganic Data Review Narrative

Case# 40200	**Site: RIVERSIDE AVE.**	**Soil: 0**
SDG# MB0007, MB0018	**Lab: BONNER**	**Water: 0**
Sampling Team: TTEMI	**Reviewer: C. STANCA**	**Other: 17**

A.2.1 Data Validation Flags:

The following flags may have been applied in red by the data validator and must be considered by the data user.

J - This flag indicates the result qualified as estimated

R and Red-Line - A red-line drawn through a sample result indicates unusable value. The red-lined data are known to contain significant errors based on documented information and must not be used by the data user.

U - This data validation qualifier is applied to sample results ≥ MDL when associated blank is contaminated

Fully Usable Data - The results that do not carry "J" or "red-line" are fully usable.

A.2.2 Laboratory Qualifiers:

The CLP laboratory applies a contractual qualifier on all Form I'S and the QC Form when a QC analysis is outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets. These qualifiers and their meanings are as follows:

N: This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.

E: This qualifier indicates the presence of interference, and is applied when the ICP serial dilution is outside the control limits.

***: This qualifier indicates the lack of precision, and is applied on Form I'S and Form VI when the Lab Duplicate analysis is outside the control limits.**

U: This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analyte is indicated by the Contract Required Quantitation Limit (CRQL) of that analyte suffixed with "U".

J: This is also a concentration qualifier that laboratory applies to a positive result below the CRQL.

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

242362

A.2.3.1 Data Case Description:

This case consists of seventeen (17) waste samples collected at the Riverside Avenue site between 6/08/10 -6/09/10 for TAL Metals, Mercury, and Cyanide analysis according to the USEPA CLP SOW No. ILM05.4. Matrix spike, laboratory duplicate and serial dilution analyses were performed on samples MB0007 and MB0018.

As per EPA Technical Direction Form (TDF) only the following criteria were reviewed by the data validator, where applicable: Preservation, Holding Time, CRQL Standard, Matrix Spike (soil matrix), Interference Check Sample, Laboratory Duplicate, Field Duplicate, ICP Serial Dilution, and Field Blank. The qualifiers applied on Form Is and CADRE EXCEL spreadsheets are based on ESAT data review of the above mentioned criteria. For all other criteria see the CADRE Reports.

A.2.3.2 CSF Audit: No problems.

A.2.3.3 Technical Review:

SDG MB0018 (6 WASTE, TAL METALS + Hg + CN, ICP-AES MA 1961.0)

ICB/CCB

The Calibration Blanks values were ≥MDL but ≤CRQL for ten analytes. (Only analytes that required qualifications were mentioned.) The following associated positive results ≤CRQL were raised to the CRQL and qualified "U".

"U" -> Sb -> MB0018, MB0019, MB0020, MB0021, MB0022, MB0037

Ca -> MB0018, MB0019, MB0020, MB0021, MB0022, MB0037

K -> MB0018, MB0020

Ba -> MB0018, MB0019, MB0020

Cd -> MB0019

Co -> MB0019, MB0021, MB0022

Fe -> MB0021, MB0022

Ni -> MB0019

Zn -> MB0018, MB0020, MB0021, MB0022

CN -> MB0018

PREPARATION BLANK

The Preparation Blank values were ≥MDL but ≤CRQL for Sb and CN. (Only analytes that required qualifications were mentioned.) The associated positive results ≤CRQL were raised to the CRQL and qualified "U".

"U" -> Sb* -> MB0018, MB0019, MB0020, MB0021, MB0022, MB0037

CN* -> MB0018

MATRIX SPIKE

The matrix spike recovery was outside the control limits of 75 - 125% for Sb (%R = 59) and Se (%R = 63). Only samples whose percent solids are within ± 10% of the percent solids of the sample used for matrix spike analysis were affected. The results with concentration ≤ 4 X Spike Amount Added were considered estimated and qualified "J".

"J"-> Sb, Se -> MB0018, MB0019, MB0020, MB0021, MB0022, MB0037

SDG MB0018 (11 WASTE, TAL METALS +Hg + CN, ICP-AES MA 1961.0)

ICB/CCB

The Calibration Blanks values were ≥MDL but ≤CRQL for ten analytes. (Only analytes that required qualifications were mentioned.) The following associated positive results ≤CRQL were raised to the CRQL and qualified "U".

"U" -> Sb -> MB0007, MB0017, MB0023, MB0025, MB0030, MB0036, MB0045

K -> MB0007, MB0015, MB0017, MB0023, MB0024, MB0025, MB0029, MB0030, MB0036, MB0040, MB0045

Na -> MB0007, MB0015, MB0017, MB0023, MB0024, MB0025, MB0029, MB0030, MB0036, MB0040

Cd -> MB0036, MB0040

Co -> MB0040

Ni -> MB0036, MB0040, MB0045

Zn -> MB0025, MB0029, MB0030, MB0045

CN -> MB0036, MB0040

PREPARATION BLANK

The Preparation Blank values were ≥MDL but ≤CRQL for Sb and CN. (Only analytes that required qualifications were mentioned.) The associated positive results ≤CRQL were raised to the CRQL and qualified "U".

"U" -> Sb* -> MB0007, MB0017, MB0023, MB0025, MB0030, MB0036, MB0045

CN -> MB0007, MB0015, MB0024, MB0036, MB0040, MB0045

MATRIX SPIKE

The matrix spike recovery was outside the control limits of 75 - 125% for As (%R = 34) and Se (%R = 63). Only samples whose percent solids are within ± 10% of the percent solids of the sample used for matrix spike analysis were affected. The results with concentration ≤ 4 X Spike Amount Added were considered estimated and qualified "J".

"J"-> As, Se -> MB0007, MB0015, MB0017, MB0023, MB0024, MB0025, MB0029, MB0030, MB0036, MB0040, MB0045

* already qualified

A.2.3.4 Contract-Problem/Non-Compliance: None.

HWSS Reviewer: _____ Date: _____
Signature

Contractor Reviewer: _____ Date: _____
Signature

Verified by: _____ Date: _____
Signature

METALS

Sample No: MB0017 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
CALCIUM	24.5	J	YES
CHROMIUM	0.048	J	YES
COBALT	0.035	J	YES
COPPER	1.3	U	YES
IRON	35.8		YES
LEAD	0.37	J	YES
MAGNESIUM	250	U	YES
MANGANESE	2.8		YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	0.95	J	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0023 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	0.16	J	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	38.1	J	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	23.9		YES
LEAD	0.5	U	YES
MAGNESIUM	7.2	J	YES
MANGANESE	30.4		YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	0.069	J	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0024 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	0.22	J	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	36.3	J	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	12.3		YES
LEAD	0.5	U	YES
MAGNESIUM	250	U	YES
MANGANESE	17.4		YES
MERCURY	0.049	J	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	0.26	J	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0025 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	0.2	J	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	15.8	J	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	15.6		YES
LEAD	0.5	U	YES
MAGNESIUM	250	U	YES
MANGANESE	6.6		YES
MERCURY	0.071	J	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	3	U	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0029 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	8.4	J	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	5	U	YES
LEAD	0.5	U	YES
MAGNESIUM	250	U	YES
MANGANESE	0.11	J	YES
MERCURY	0.06	J	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	3	U	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0030 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	6.1	J	YES
CHROMIUM	0.04	J	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	5	U	YES
LEAD	0.5	U	YES
MAGNESIUM	250	U	YES
MANGANESE	0.13	J	YES
MERCURY	0.041	J	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	3	U	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0036 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	3.5	J	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	182		YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	114	J	YES
CHROMIUM	0.14	J	YES
COBALT	2.5	U	YES
COPPER	41.2		YES
IRON	25.9		YES
LEAD	3.6		YES
MAGNESIUM	3.1	J	YES
MANGANESE	0.97		YES
MERCURY	0.1		YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	409		YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0040 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	6.4	J	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	0.29	J	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	161	J	YES
CHROMIUM	6.5		YES
COBALT	2.5	U	YES
COPPER	1.1	J	YES
IRON	198		YES
LEAD	2.5		YES
MAGNESIUM	31.9	J	YES
MANGANESE	2.5		YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	6.8		YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0045 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/17/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	0.51	J	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	19.1	J	YES
CHROMIUM	0.43	J	YES
COBALT	2.5	U	YES
COPPER	0.1	J	YES
IRON	511		YES
LEAD	0.74		YES
MAGNESIUM	250	U	YES
MANGANESE	1.5		YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	1120		YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	3	U	YES
CYANIDE	2.5	U	YES

METALS

Sample No: PBS01 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 7/18/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	-1.834		YES
ANTIMONY	0.68		YES
ARSENIC	1		YES
BARIUM	-0.237		YES
BERYLLIUM	0.5		YES
CADMIUM	-0.029		YES
CALCIUM	500		YES
CHROMIUM	1		YES
COBALT	-0.073		YES
COPPER	2.5		YES
IRON	10		YES
LEAD	1		YES
MAGNESIUM	500		YES
MANGANESE	1.5		YES
MERCURY	0.1		YES
NICKEL	4		YES
POTASSIUM	500		YES
SELENIUM	3.5		YES
SILVER	1		YES
SODIUM	500		YES
THALLIUM	2.5		YES
VANADIUM	5		YES
CYANIDE	0.25		YES
ZINC	-0.059		YES

METALS

Sample No: LCSS01 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 7/18/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	99.8		YES
ANTIMONY	62.1		YES
ARSENIC	280		YES
BARIUM	1.2		YES
BERYLLIUM	5.4		YES
CADMIUM	11.8		YES
CALCIUM	48000		YES
CHROMIUM	28.5		YES
COBALT	40.9		YES
COPPER	1730		YES
IRON	6280		YES
LEAD	61.1		YES
MAGNESIUM	28900		YES
MANGANESE	63.3		YES
MERCURY	2.4		YES
NICKEL	17.5		YES
POTASSIUM	21.8		YES
SELENIUM	11.1		YES
SILVER	5.6		YES
SODIUM	17.6		YES
THALLIUM	8.9		YES
VANADIUM	18.6		YES
CYANIDE	9		YES
ZINC	49.6		YES

METALS

Sample No: MB0007 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.056	J	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	1.9	J	YES
LEAD	0.5	U	YES
MAGNESIUM	250	U	YES
MANGANESE	0.75	U	YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	0.13	J	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0007A	**SDG No: MB0007**	Case No: 40200
pH:	Matrix: SOIL	Units: UG/L
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/8/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ARSENIC	26.2		YES
SELENIUM	90.7		YES

METALS

Sample No: MB0007D | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3		YES
ARSENIC	0.5	U	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	3.8	J	YES
LEAD	0.5	U	YES
MAGNESIUM	250	U	YES
MANGANESE	0.75	U	YES
NICKEL	2		YES
POTASSIUM	250		YES
SELENIUM	1.8	U	YES
SILVER	0.5	U	YES
SODIUM	250		YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	0.17	J	YES

METALS

Sample No: MB0007S	**SDG No: MB0007**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/8/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	188		YES
ANTIMONY	9.2		YES
ARSENIC	1.4		YES
BARIUM	195		YES
BERYLLIUM	4.6		YES
CADMIUM	4.7		YES
CHROMIUM	19.4		YES
COBALT	48.6		YES
COPPER	23.3		YES
IRON	95.3		YES
LEAD	2		YES
MANGANESE	46.4		YES
NICKEL	48.6		YES
SELENIUM	3.2		YES
SILVER	4.2		YES
THALLIUM	4.5		YES
VANADIUM	46.1		YES
ZINC	46.8		YES

METALS

Sample No: MB0015 | **SDG No: MB0007** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	364		YES
ANTIMONY	3	U	YES
ARSENIC	0.24	J	YES
BARIUM	34.2		YES
BERYLLIUM	0.02	J	YES
CADMIUM	0.37		YES
CALCIUM	1400		YES
CHROMIUM	3.8		YES
COBALT	1.3	J	YES
COPPER	58.5		YES
IRON	7320		YES
LEAD	26.5		YES
MAGNESIUM	445		YES
MANGANESE	60.4		YES
MERCURY	0.18		YES
NICKEL	4.6		YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	250	U	YES
THALLIUM	1.3	U	YES
VANADIUM	2.6		YES
ZINC	308		YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0017	**SDG No: MB0007**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/8/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	U	YES
ARSENIC	0.5	UJ	YES
BARIUM	0.7	J	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES

METALS

Sample No: MB0019 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
SILVER	0.5	U	YES
SODIUM	10.6	J	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	63.3		YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0020 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	UJ	YES
ARSENIC	0.5	U	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	5.4		YES
LEAD	1.5		YES
MAGNESIUM	4.6	J	YES
MANGANESE	0.11	J	YES
MERCURY	0.049	J	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	13.1	J	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	3	U	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0021 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	UJ	YES
ARSENIC	0.5	U	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	5	U	YES
LEAD	1.4		YES
MAGNESIUM	250	U	YES
MANGANESE	0.75	U	YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	1.5	J	YES
THALLIUM	5.8		YES
VANADIUM	2.5	U	YES
CYANIDE	2.5	U	YES
ZINC	3	U	YES

METALS

Sample No: MB0022 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	UJ	YES
ARSENIC	0.5	U	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	5	U	YES
LEAD	3.4		YES
MAGNESIUM	250	U	YES
MANGANESE	0.12	J	YES
MERCURY	0.075	J	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES

METALS

Sample No: MB0037	**SDG No: MB0018**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/9/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	3	UJ	YES

METALS

Sample No: MB0037D	**SDG No: MB0018**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/9/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
VANADIUM	2.5	U	YES
ZINC	88.6		YES

METALS

Sample No: MB0037S | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	183		YES
ANTIMONY	6.3		YES
ARSENIC	3.2		YES
BARIUM	212		YES
BERYLLIUM	4.2		YES
CADMIUM	4.3		YES
CHROMIUM	17.4		YES
COBALT	45.5		YES
COPPER	20.9		YES
IRON	86.7		YES
LEAD	1.9		YES
MANGANESE	43.7		YES
NICKEL	44.9		YES
SELENIUM	3.2		YES
SILVER	3.8		YES
THALLIUM	3.9		YES
VANADIUM	40.9		YES
ZINC	130		YES

METALS

Sample No: PBS01 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 7/18/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	-2.261		YES
ANTIMONY	0.81		YES
ARSENIC	-0.221		YES
BARIUM	-0.263		YES
BERYLLIUM	0.5		YES
CADMIUM	-0.041		YES
CALCIUM	500		YES
CHROMIUM	1		YES
COBALT	-0.069		YES
COPPER	2.5		YES
IRON	10		YES
LEAD	1		YES
MAGNESIUM	500		YES
MANGANESE	1.5		YES
MERCURY	0.1		YES
NICKEL	4		YES
POTASSIUM	500		YES
SELENIUM	3.5		YES
SILVER	1		YES
SODIUM	500		YES
THALLIUM	2.5		YES
VANADIUM	5		YES
CYANIDE	0.25		YES
ZINC	-0.1		YES

METALS

Sample No: LCSS01 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 7/18/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	91		YES
ANTIMONY	52.5		YES
ARSENIC	245		YES
BARIUM	1		YES
BERYLLIUM	4.7		YES
CADMIUM	10.3		YES
CALCIUM	41300		YES
CHROMIUM	25.2		YES
COBALT	35.6		YES
COPPER	1510		YES
IRON	5460		YES
LEAD	53.3		YES
MAGNESIUM	24800		YES
MANGANESE	55.3		YES
MERCURY	2.4		YES
NICKEL	15.3		YES
POTASSIUM	14.6		YES
SELENIUM	9.8		YES
SILVER	4.3		YES
SODIUM	11.9		YES
THALLIUM	7.8		YES
VANADIUM	16.4		YES
CYANIDE	9		YES
ZINC	42.4		YES

METALS

Sample No: MB0018 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	0.38	UJ	YES
ARSENIC	0.5	U	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	0.1	J	YES
IRON	9.3		YES
LEAD	1.8		YES
MAGNESIUM	4.3	J	YES
MANGANESE	0.12	J	YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	13.4	J	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	3	U	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0019 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/8/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	13.2		YES
ANTIMONY	3	UJ	YES
ARSENIC	0.5	U	YES
BARIUM	10	U	YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.16	J	YES
COBALT	2.5	U	YES
COPPER	9.7		YES
IRON	30.6		YES
LEAD	10.3		YES
MAGNESIUM	17.6	J	YES
MANGANESE	2.9		YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES

METALS

Sample No: MB0022	**SDG No: MB0018**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/8/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
SILVER	0.5	U	YES
SODIUM	3.3	J	YES
ZINC	3	U	YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0037 | **SDG No: MB0018** | Case No: 40200
pH: | Matrix: SOIL | Units: MG/KG
LAB: BONNER | %Moisture: 0 | Dilution Factor: 1
Date Sampled: 6/9/2010 | Time Sampled: | Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ARSENIC	0.5	U	YES
BARIUM	14.4		YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	250	U	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3	U	YES
IRON	5	U	YES
LEAD	0.5	U	YES
MAGNESIUM	250	U	YES
MANGANESE	0.75	U	YES
MERCURY	0.1	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	UJ	YES
SILVER	0.5	U	YES
SODIUM	21.2	J	YES
THALLIUM	1.3	U	YES
VANADIUM	2.5	U	YES
ZINC	70.5		YES
CYANIDE	2.5	U	YES

METALS

Sample No: MB0037A	**SDG No: MB0018**	Case No: 40200
pH:	Matrix: SOIL	Units: UG/L
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/9/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ANTIMONY	118		YES
SELENIUM	62.4		YES

METALS

Sample No: MB0037D	**SDG No: MB0018**	Case No: 40200
pH:	Matrix: SOIL	Units: MG/KG
LAB: BONNER	%Moisture: 0	Dilution Factor: 1
Date Sampled: 6/9/2010	Time Sampled:	Sample Location: NA

Chemical Name	Result Value	Validation	Reportable
ALUMINUM	10	U	YES
ANTIMONY	0.39	J	YES
ARSENIC	0.5	U	YES
BARIUM	20.3		YES
BERYLLIUM	0.25	U	YES
CADMIUM	0.25	U	YES
CALCIUM	10.1	J	YES
CHROMIUM	0.5	U	YES
COBALT	2.5	U	YES
COPPER	1.3		YES
IRON	1.4	J	YES
LEAD	0.44	J	YES
MAGNESIUM	250	U	YES
MANGANESE	0.75	U	YES
NICKEL	2	U	YES
POTASSIUM	250	U	YES
SELENIUM	1.8	U	YES
SILVER	0.5	U	YES
SODIUM	19.9	J	YES
THALLIUM	1.3	U	YES